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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,929	10/10/2001	Dai Inoue	JCLA7503	1135

7590 12/17/2004  
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EXAMINER

HALPERN, MARK

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SSCU

# Office Action Summary

Application No.

09/974,929

Applicant(s)

INOUE ET AL.

Examiner

Mark Halpern

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10, 12-14, 16, 18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 12-14, 16 and 20 is/are rejected.
- 7) ☒ Claim(s) 18, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 10/25/2004, has been entered. Claim 1 is amended.

### ***Claim Objections***

2) Claims 1-5, 10, 12-14, 16, 18, 20-22, are objected to because of the following informalities: Claim 1, line 9; "a" should be replaced with –an-. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3) Claims 1, 2, 20, are rejected under 35 U.S.C. 102(b) as being anticipated by Koaizawa (JP 11-343135, translated).

Claim 1: Koaizawa discloses an apparatus for producing porous optical fiber preform (Title). The apparatus includes a reaction vessel 1 that includes main chamber 2, and an upper room opening 9 located above the chamber 2, where fiber preform 6, starting rod 5, hangs from rotating shaft 7. Burners 3 and 4 are located in the chamber 2 and are aimed at preform 6. An opening in sidewall behind and close to the burners brings air into the chamber from air supply means 16. Said open sidewall that introduces air supply into the chamber is of a horizontally extending slit configuration and is located starting underneath the ceiling of chamber 2. A gas exit port 17 is installed in a sidewall of chamber 2 opposite to the sidewall through which the gas is introduced (Abstract, pg. 2, line 25 to pg. 3, line 28, and Figures 1-2). An opening in sidewall of Koaizawa, recited above, reads on the amended "slit made in a upper portion of a sidewall", since the sidewall opening of Koaizawa includes the upper portion of the sidewall.

Claim 2: burner 4 is a clad burner (Figure 1, see figures description).

Claim 20: the gas exit is in wall of the upper part of the chamber. Figure 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) Claims 3-5, 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Koaizawa.

Claim 3: Koaizawa is applied as above for claim 1, Koaizawa fails to disclose that the horizontal length of the opening slit is at least 75% of the width of the reaction chamber. Koaizawa does not provide a length dimension of the open sidewall horizontally extending slit configuration, however, as shown in Figure 2, it would have been obvious, to one skilled in the art at the time the invention was made, that the opening be of horizontal length of at least 75% of the width of the reaction chamber, since the opening extends across the width of the chamber except for the width of the air dampers 21 on either side of the chamber.

Claim 4: Koaizawa is applied as above for claim 1, Koaizawa fails to disclose that the gas exit is rectangular and the distance between a top side of the gas exit and the ceiling of the reaction chamber is 50 mm or less. It would have been obvious, to one skilled in the art at the time the invention was made, that the gas exit be of any shape including a rectangular shape and the distance between a top side of the gas exit and the ceiling of the reaction chamber be any distance including a distance shown by Koaizawa and a distance of 50 mm or less claimed, since the specification does not disclose any unusual results and benefits of the claimed gas exit configuration.

Claim 5: Koaizawa is applied as above for claim 1, Koaizawa fails to disclose that the horizontal length of gas exit is at least 75% of the width of the reaction chamber. It would have been obvious, to one skilled in the art at the time the invention was made, that the horizontal length of gas exit be of any length including a length shown by

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Koaizawa or a length of at least 75% of the width of the reaction chamber, since the specification does not disclose any unusual results and benefits of the claimed gas exit configuration.

Claim 10: Koaizawa is applied as above for claim 1, Koaizawa fails to disclose that the upper room above chamber is substantially cylindrical. It would have been obvious, to one skilled in the art at the time the invention was made, that the upper room above chamber, opening 9 of Koaizawa, be substantially cylindrical, since the preform and the rotating shaft 7 are circular and a cylindrical configuration of the upper room and space 9 would enhance the gas flow and provide even thermal distribution around the preform.

5) Claims 12-14, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Koaizawa in view of Kudu (JP 09-118537, translated, copy attached).

Claim 12: Koaizawa is applied as above for claim 1, Koaizawa fails to disclose that the floor of the reaction chamber is formed with raised floor having floor higher than the core deposition position and located at the foot of the wall of the chamber which has the gas exit. Kudu discloses a process for drawing optical fiber in an apparatus that includes chamber 20 and lower chamber 10, thus having the floor raised relative to the core deposition position (Kudu, Abstract and Figure 1). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Koaizawa and Kudu, because such a combination would permit different operations (such as clad deposition and core heating) take place in separate rooms subject to

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independent control conditions in the apparatus of Koaizawa as disclosed by Kudu (Kudu, Abstract, and pg. 2, lines 1-20).

Claim 13: horizontal partition 30 separates chamber 20 and lower chamber 10 (Kudu, Figure 1). The core deposition extends to chamber 10 through opening in said partition. The dampers 14 and 24 of exhaust ports 12 and 22, are independently controlled by computers 17 and 27. It would have been obvious, to one skilled in the art at the time the invention was made, that damper 14 be made permanently closes thus the lower chamber would have no exhaust capability (Kudu, pg. 2, lines 4-15, Figure 1).

Claim 14: it would have been obvious, to one skilled in the art at the time the invention was made, that the horizontal partition 30 that separates chamber 20 and lower chamber 10 be of circular shape, and it would have been obvious that the radius of the opening be greater than the radius of the soot preform of claimed difference, since the preform is of cylindrical shape and thus it would enhance the gas flow and provide even thermal distribution around the preform.

Claim 16: a burner is installed in the upper reaction chamber 20 and a burner is installed in the lower chamber 10 of Kudu (Figure 1).

#### ***Allowable Subject Matter***

- 6) Claims 18, 21-22, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter is that the cited prior art does not disclose an apparatus for manufacturing a soot preform equipped with an upper chamber and a lower chamber and where two burners are located in the lower chamber (claim 18); an apparatus having gas exit of dimensions claimed (claims 21, 22).

***Response to Amendment***

7) Applicants' arguments filed 10/25/2004, have been fully considered but they are not persuasive.

In regard to independent claim 1, Applicants allege that the amended claim recites a "slit made in a upper portion of a sidewall", which is not disclosed by the cited prior art, Koaizawa, therefore Koaizawa does not anticipate claim 1.

Examiner responds as follows. An opening in sidewall of Koaizawa reads on the amended "slit made in a upper portion of a sidewall", since the sidewall opening of Koaizawa includes the upper portion of the sidewall.

Applicants' arguments regarding the dependent claims refer to the resolution of claim 1.



**Conclusion**

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Halpern